

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-025524**Date Inspected:** 04-Dec-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai**CWI Name:** Tian Lei**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector R. Hernandez was present during the time noted above and conducted observations relative to the work being performed.

The QA Inspector randomly observed the following work in progress:

Bay Number 1

This QA inspector assisted in the performance MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel, by the lot method testing procedure. This QA Inspector assisted in the generation an MT report for this date by inspector lot no. All components were as listed on NWIT notification no. 07626. The member(s) is/are identified as OBG Barrier Rails identified as component. The weld designations reviewed are as follows:

1. E2-SB1D-029-126, 128, 130, 036, 040, 042, 044, 055, 019.
2. E2-SB5-033-126, 128, 130, 036, 040, 042, 044, 055, 019.
3. E2-SB5-030-126, 128, 130, 065, 069, 073, 075, 092, 019.
4. E2-SB4-005-126, 128, 130, 036, 040, 042, 044, 055, 019.
5. E2-SB7-003-126, 128, 130, 065, 069, 073, 075, 082, & 019.
6. E2-SB1D-033-126, 128, 130, 065, 069, 073, 075, 082, & 019.
7. E2-SB1-029-126, 128, 130, 036, 040, 042, 044, 055, 019.

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Bay Number 2

Performed verification VT for the component(s) identified as OBG Sub Assembly for component(s) listed as SA3446-001. This QA inspector signed green tag #15394.

Performed verification VT for the component(s) identified as OBG Sub Assembly for component(s) listed as SA3444-001. This QA inspector signed green tag #15395.

Performed verification VT for the component(s) identified as OBG Sub Assembly for component(s) listed as SA3449-001. This QA inspector signed green tag #15393.

Performed verification VT for the component(s) identified as OBG Sub Assembly for component(s) listed as SA3442-001. This QA inspector signed green tag #15396.

Performed verification VT for the component(s) identified as OBG Sub Assembly for component(s) listed as SA3448-001. This QA inspector signed green tag #15397.

This QA inspector observed ZPMC QC MT technicians and ZPMC personnel removing cracks found under the guidelines of critical weld repair no. B-CWR-2314. This inspector monitored ZPMC personnel preheating all welds prior to performing grinding operations to remove cracks. This inspector also monitored excavation depths that entered into parent metal with a Bridge-cam inspection tool.

The following is a list of welds that contain transverse cracks and are being removed by ZPMC personnel by grinding. the number in parenthesis is the depth of excavation that entered into the parent metal on plate X5055A and X5055B.

646(0mm) 554(5mm) 693(0mm) 788(2mm) 281(5mm) 790(0mm) 741(4mm)
599(4mm) 643(2mm) 371(4m) 886(0mm) 837(0mm) 509(3mm) 739(0mm)
882(4mm) 374(3mm) 981(0mm) 419(3mm) 507(4.5mm) 786(0mm) 464(3.5mm)
885(0mm) 884(0mm) 417(4mm) 506(3mm)

Bay Number 3

FCAW welding of complete joint penetration welds located on Longitudinal Diaphragm components identified as LD3041B-001 as identified on weld repair data sheet B-WR-17995 for weld no. 109. Welder is identified as welder no. 055564. The welding variables recorded by ZPMC QC identified as Tian Lei appeared to comply with applicable WPS(s) WPS-345-SMAW-3G(3F)-repair. During this inspection, inspector noticed that an incomplete weld on weld no. 121, ZPMC personnel had damaged plate identified as X4649D and burned a hole 10mm in diameter through the web of this base metal. ZPMC QC personnel was notified and area was marked for CWR (base metal repair), see photos below.

This QA inspector assisted in the performance MT of approximately 15% of the area previously tested and

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accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. All components were as listed on NWIT notification no. 07617. The member(s) is/are identified as OBG Segment identified as component. The weld designations reviewed are as follows:

1. SEG3019K-127.

This QA inspector performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. All components were as listed on NWIT notification no.(s) 07617. The member(s) is/are identified as OBG Segment assembly. The weld designations reviewed are as follows:

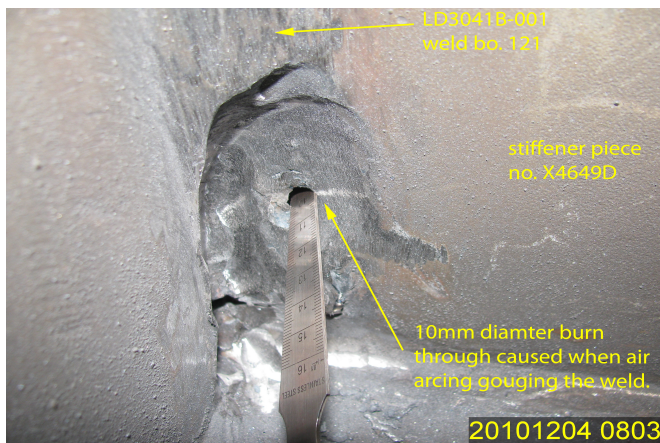
1. SEG3019K-127.

Bay Number 8

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. All components were as listed on NWIT notification no. 07621. The member(s) is/are identified as OBG Bike Path identified as component. The weld designations reviewed are as follows:

1. BK004A2-058-016 & 018.

Unless otherwise noted above all items observed on this day appeared to be in general compliance with the applicable contract documents



Summary of Conversations:

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 1500-0042-02372, who represents the Office of Structural Materials for your project.

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Inspected By:	Hernandez,Rene	Quality Assurance Inspector
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Reviewed By:	Hall,Steven	QA Reviewer
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